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PROPHYLAXIS AND TREATMENT OF SEASICKNESS

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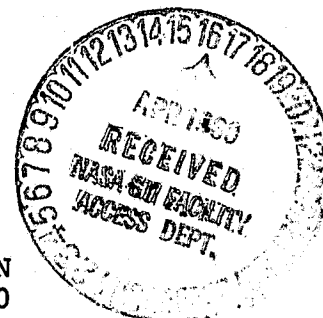
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## PROPHYLAXIS AND TREATMENT OF SEASICKNESS

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Providing methods for safeguarding the health of the personnel on a distant /40\* cruise has been a perpetual preoccupation of the commander. Particularly relevant is prophylaxis and treatment of seasickness, since the number affected among young sailors is sometimes fairly large.

When the ship is rocking a human being experiences disruption of many physiological functions and organic systems that may induce the development of acute illnesses or the flareup of chronic ones and the result is reduced or sometimes totally lost work capacity.

Provisionally we may distinguish two variations of seasickness, latent and overt. The first is marked by feeling poorly in general (feeling of discomfort), mild weakness, a heavy head and a moderate drop in work capacity. In the second case some sort of disorder appears in almost all organs of the human body. As a rule they are noted in the central and autonomic nervous systems, the cardiovascular system, the organs of the gastrointestinal tract, etc. In this context there is often headache, vertigo, nausea, vomiting, paling of the cutaneous integuments, interrupted pulse and the onset of cold shivering.

The clinical approach to seasickness is marked by the large diversity in combinations of the symptoms previously enumerated. However, depending upon the dominant /41 type of phenomena the illness runs its course in the following forms: nervous, gastrointestinal, cardiovascular and mixed. Each form presents varying degrees of seriousness. Of course such a division into clinical forms is provisional and schematic but it is convenient for the application of concrete therapeutic measures.

In seasickness prophylaxis the most important feature is medical supervision of

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the crew's condition of health. An important part is played by training aimed at enhancing the statokinetic stability of the organism as well as sanitary-hygienic measures, psychohygiene and psychoprophylaxis. Drugs are used in extreme cases.

It is recommended that before sailing the physician examine every newly arrived specialist to determine the subject's degree of vestibular reaction. For this purpose the revolving seats at the combat stations may be used. Those who are very sensitive to rolling motion should be put under special medical supervision and prophylactic measures applied in their case.

It should be noted, that increased statokinetic stability in sailors is promoted by physical education and sports of all kinds. Experience has shown, that the most effective are swimming, diving, basketball, soccer, ice skating. It is necessary that when they are studying in training units and institutions the students do special gymnastic exercises including acceleration movements of the head and torso.

As an example we cite one of the sets of morning physical exercises which we use under any and all conditions. This may be done standing or sitting in a chair but it must be done with eyes closed. On command the sailor begins to turn his head to the right (left) as far as it will go, back and forward (nods) and to either side and then makes circular head motions from right to left and vice versa.

Each type of exercise is to be done for one minute at an initial pace of 30 movements/min, gradually increasing the speed if possible to 120/min.

The hygienic measures should be aimed chiefly at eliminating factors that favor development of seasickness. For this purpose the living and working quarters (compartments) of the ship must be aired (ventilated) and the temperature in these areas not permitted to rise.

Sleep is powerful prophylactic. For most people suffering from seasickness the illness is mitigated or disappears during sleep. Following sleep a person does not experience the rolling sensation and therefore, since this lasts for 2-3 hours, it is important that a sailor sleep before going on watch.

In the battle against seasickness an important part is played by psychohygiene

and psychoprophylaxis, aimed at maintaining and improving health, the development of willpower, restraint, stability of disposition, self-demanding qualities, courage, optimism, etc. Autogenous training is also effective.

In treating seasickness the first goal to be attained is normalization of the disrupted functions of the nervous and cardiovascular systems and of the gastro-intestinal tract as well as metabolism and the electrolyte and acid-base conditions of the organism. It must be done as a whole and at the same time with differentiation and with an eye to the special features of the clinical picture, the degree of overt-ness and the general condition of the seasick patient's health.

Thus, for management of the dyspeptic syndrome, noted with special frequency among persons with diseases of the gastrointestinal tract, the indication is anes-thesin at a dosage of 0.25 three times a day or novocain 0.25-30.0% three times a day. If the dominant disturbances are in the cardiovascular system the patient should put validol under the tongue; likewise preparations should be taken that are usually prescribed for diseases of the cardiovascular system (corvalol, valocordine, cardia-mine, Zelenin drops, etc.). In cases where the chief symptoms are neuralgic, insom-nia, excitation, headache, an approved remedy is 0.25-0.05 aminazine three times a day. It should also be given prophylactically to persons predisposed to seasickness when on the voyage rough weather seems to be in the offing. /42

A sedative indicated for seasickness is scopolamine in doses of 0.6-1 mg. It is effective for up to 48 hours.

For nervous forms of seasickness the remedies used should be medinal, the mix-tures of P. I. Syabro and R. A. Okunev, suprastine, dramamine, pipolphene, diprazine, dedalone, etc. However patients taking these drugs present mouth dryness, headache and somnolence. The medical staff should keep an eye on such sailors.

In the treatment of seasickness use is also made of substances that enhance the non-specific resistance of the organism. Her belong vitamins, dibasol, ginseng, Schi-zandra, etc. It is recommended that 15 mg of vitamin B<sub>6</sub> be given in 24 hours to nor-malize vitamin balance and metabolism and also to enhance vestibular resistance. On a long voyage a complex aerovit-polyvitamin preparation may be given, 1 tablet twice a day.

The physical arrangements on board should be such that attention is diverted (shifted) from the rocking of the vessel. Physical labor in the open air is good as well as training at battle stations. Sailors feel more comfortable in the central parts of the vessel, where the rocking effect on the organism is less. It is recommended that leisure time be spent lying on one's back on a bunk parallel to the side or sitting in a seat with head slightly tilted back.

Dietary organization is highly important. We know, that a rocking motion inhibits the secretory function of the stomach resulting in the appearance of dyspeptic symptoms. Therefore on the voyage it is important to emphasize in the sailors' food ration such items as lean meat, boullion, vegetable soups, beet soup, pickled cucumber soup, herring, and juices, which promote abundant juice secretion. If possible it is good to take food when the first signs of rocking are noticed, since the gastrointestinal symptoms are more pronounced with tossing that sets in immediately after eating. When one eats during stormy weather, it is suggested that acidinpensin be taken. Cranberry extract should be added to the drinking water and tea. Vegetable and fruit juices are helpful. Since the rocking motion disturbs the vitamin-protein metabolism, it is important during the voyage to add multivitamins, especially those of the B group, to the sailors' food ration.

These are some of the basic things the ship's doctor should know, as well as other naval officers, so as to carry out effectively therapeutic-prophylactic measures aimed at enhancing the work capacity of personnel.

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